

Utility Patent Application

CONFIDENTIAL INFORMATION

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SAFETY COVER FOR BURNER DIALS OF A KITCHEN STOVE

RELATED APPLICATIONS

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The present invention was first described in Disclosure Document
Registration 529,684 filed on April 10, 2003 under 35 U.S.C. §122, 37 C.F.R.
§1.14 and MPEP § 1706. There are no previously filed, nor currently any co-
pending applications, anywhere in the world.

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BACKGROUND OF THE INVENTION

1. Field of the Invention

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The present invention relates generally to safety covers, and more
particularly, to a safety cover configured for use on a kitchen stove so as to cover
the burner dials, thereby preventing unwanted or accidental tampering of the
burner dials.

2. Description of the Related Art

Too often, a tragic house fire is caused by tampering of stove burner dials by children or the mentally impaired. While rear mounted burner controls are almost impossible for a child to reach, front mounted burner controls can be reached by almost any walking toddler. This is often a deadly combination when coupled with the fascination that toddlers have with knobs and dials. Even if parents or care givers carefully police the area around the stove, all it takes is one time and a few minutes alone for a catastrophe to result. Many parents who completely childproof their homes often overlook the stove as a potential disaster source, due to the fact that safety product manufacturers do not provide adequate or easy-to-use solutions for preventing access to stove controls. Accordingly, there is a need for a means by which access to front mounted stove burner controls can be restricted to young children and toddlers while allowing easy access for adults.

A search of the prior art did not disclose any patents that read directly on the claims of the instant invention; however, the following references were considered related:

U.S. Patent No. **4,134,386**, issued in the name of *Miguel*, discloses a stove switch cover lock comprising an elongated housing with a lock;

U.S. Patent No. **4,157,705**, issued in the name of *Caan*, discloses a range guard comprising an upstanding wall for preventing a person from accidentally touching a stove burner during or after use while still hot;

U.S. Patent No. **5,040,162**, issued in the name of *De Rozarieux et al.*, discloses a cover device for controls comprising a pivotal window intermediate to two upstanding sidewalls;

U.S. Patent No. **5,357,942**, issued in the name of *Williams et al.*, discloses a grease shield for range controls comprising a flexibly vinyl material having an edge mounted upon the range adjacent the burner controls, the shield overlying the burner controls;

U.S. Patent No. **5,615,667**, issued in the name of *Seeley et al.*, discloses a splatter or grease guard comprising a substantially U-shaped apparatus attached to pivots mounted on the side of a stove;

U.S. Patent No. **6,371,105**, issued in the name of *Merritt*, discloses a stove burner shield with folding splash guards and locking control knob protective cover;

U.S. Patent No. **6,526,963**, issued in the name of *Hoshowski*, discloses a method and apparatus for protecting a stove control panel from splatter.

U.S. Patent No. **D 325,249**, issued in the name of *Kliebert*, discloses an ornamental design for a splash guard; and

U.S. Patent No. **D 347,550**, issued in the name of *Boone*, discloses an ornamental design for an electric range control panel cover.

Consequently, there exists a continuous need for new ideas and enhancements for existing products in the burner dial industry.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide a safety cover for shielding and protection burner control dials of a kitchen stove from tampering, especially by children or the mentally impaired.

5 It is a feature of the present invention to provide a safety cover having a plate affixed to the surface of a kitchen stove on which the burner control dials are located.

10 It is a further feature of the present invention to provide a safety cover having a recessed compartment bay pivotally coupled to the plate, wherein the bay is pivotally rotated about a hinge mechanism to selectively open and close the bay in relation to the plate, thus allowing for covering of the burner control dials.

15 It is yet a further feature of the present invention to provide a safety cover having an extension for increasing the lateral width of the safety cover, the extension slidably affixed to the bay, wherein the extension is telescopically adjustable therein.

20 Briefly described according to one embodiment of the present invention, a safety cover for burner dials of a stove is an apparatus that covers front-mounted control knobs or dials on stoves. The safety cover takes the shape of an elongated compartment that spans the width of the stove. The compartment is hinged along the bottom and connects to a square frame that is attached to the stove face via

double sided foam adhesive tape or other appropriate adhesive means. When the safety cover is closed, it covers all front-mounted control knobs at once and is secured in the closed position at its top by one or two friction fit snap mounts. An adult user can simply release the snaps and open it in a downward manner to allow
5 for easy and complete access to all knobs.

BRIEF DESCRIPTION OF THE DRAWINGS

The advantages and features of the present invention will become better
10 understood with reference to the following more detailed description and claims taken in conjunction with the accompanying drawings, in which like elements are identified with like symbols, and in which:

FIG. 1 is a perspective view of a kitchen stove **1** having a surface **3** through which a plurality of burner control dials **2** are housed, wherein a safety cover **10**
15 for the burner control dials **2** is affixed to the surface **3** and the bay **14** is selectively opened to expose the dials **2**;

FIG. 2 is a perspective view of the safety cover **10** having a laterally elongated aperture **18**;

FIG. 3 is a perspective view of an alternate embodiment of the laterally
20 elongated aperture **18** of **FIG. 2**, wherein a plurality of apertures **18** are provided;

FIG. 4 is a side view of the safety cover **10** illustrating the adhesive pads **26** positioned on the posterior surface of plate **12**, and the cooperative cavity **34** and hammer **36** provided to securely close the bay **14** to plate **12**;

FIG. 5 is a front view of the plate **12** and the bay **14** separated to illustrate the piano hinge style complimentary coupling and dowel **32** used for coupling;

FIG. 6a is a perspective view of an orthogonal bay **14** with an extension **50** for extending the lateral width thereof; and

FIG. 6b is a side view of the bay **14** and the extension **50**.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The best mode for carrying out the invention is presented in terms of its preferred embodiment, herein depicted within Figures 1 through 6b.

1. Detailed Description of the Figures

Referring now to **FIG. 1** through **FIG. 5**, a safety cover **10** for burner control dials **2** of a stove **1** is shown in accordance with a preferred embodiment of the present invention. The safety cover **10** comprises a laterally elongated rearward plate **12** pivotally coupled with a recessed compartment bay **14**. The plate **12** and bay **14** are coupled about hinge means **16** of varying configurations. The plate **12** is affixed to a surface **3** that exposes the burner control dials **2**, wherein the bay **14** pivotally rotates or swings about hinge means

16 for either shielding the burner control dials 2 or rotating/swinging open to expose the burner control dials 2 for use.

The plate 12 comprises a laterally elongated form intended to span the lateral width of the surface 3, with the plate 12 having an anterior surface 20 and a posterior surface 22 opposite surface 20. The plate 12 comprises at least one aperture 18 for allowing the burner control dials 2 to penetrate therethrough.

The aperture 18 depicted in FIG. 2 is a laterally elongated aperture 18 dimensionally sized to accommodate every control burner dial 2 provided on the surface 3 of the stove 1. In an alternate embodiment, depicted in FIG. 3, the burner control dials 2 are exposed through a plurality of apertures 18 dimensionally sized to accommodate individual burner control dials 2 provided.

The plate 12 is affixed to surface 3 by attachment means, which may include double sided adhesive pads 26, hook and loop material (with the hook material on one surface and the loop material on the other surface), brackets or other similar means. It is envisioned that the most cost effective and easily mountable means is the double sided adhesive pads 26, which would permit the user to remove the protective cover of the pads 26 and mount the pads 26 to the posterior surface 22 and then to the stove surface 3. At the junction between the plate 12 and the bay 14, the plate 12 comprises a plurality of cylinders 28 complimentary to a plurality of cylinders 30 formed on the bay 14. The cylinders 28 and 30 are cooperatively coupled and secured together in a hinged manner

by a dowel **32** inserted therethrough. The form of this coupling between the cylinders **28** and **30** is similar to that of a piano hinge known in the art. However, it is further envisioned that other similar hinged mechanisms and arrangements may be used and incorporated into the present invention without departing from the scope and spirit of the present invention. By way of example, a plurality of hinges may be placed on the plate **12** and bay **14**, connecting the plate **12** and bay **14** in a manner similar to a cabinet door to a cupboard. The plate **12** also includes locking means, envisioned as either a cavity **34** and a hammer **36** for selectively opening and closing the bay **14** in relation to the plate **12**. In one embodiment, the plate **12** will house the cavity **34** and the bay **14** will house the hammer **36**, thereby cooperatively engaging when the plate **12** and bay **14** are selectively closed upon one another. In an alternate embodiment, the plate **12** will house the hammer **36** and the bay **14** will house the cavity **34**, also allowing for cooperative engagement of the cavity **34** and hammer **36**. In either configuration, the hammer **36** is impinged within the cavity **34**, thereby securely locking the bay **14** with the plate **12**, and thus preventing tampering with the burner control dials **2**. Other embodiment are also envisioned, including an orthogonal latch on the plate **12** with a tongue that fits into a groove formed on the bay **14**, the tongue and groove impinged with one another in a manner similar to the cavity **34** and hammer **36**.

The compartment bay **14** comprises a front wall **38**, a rear wall **40** (opposite to and parallel with the front wall **38**), and sidewalls **42** and **44**, respectively, intermediate to the front and rear walls **38** and **40**. A bottom wall **46** may also be provided for orthogonally coupled walls **38**, **40**, **42** and **44**, depending on the geometric configuration of the front and rear walls **38** and **40** (for instance, if the front and rear walls **38** and **40** are curvilinear, as depicted in **FIG. 2**, then the walls **38** and **40** form a curvilinear bottom and a bottom wall is not required). The walls **38**, **40**, **42** and **44** (and **46**, if required) form a recessed storage volume **48** within the bay **14**. The bay **14** and storage volume **48** are provided to accommodate the thickness of the burner control dials **2**, thus allowing the bay **14** to completely shield the burner control dials **2** when the bay **14** is pivotally rotated to the plate **12** and secured by the cavity **34** and hammer **36**. As noted, the configuration of the bay **14** may be provided in a variety of geometric formations, including an arcuate or curvilinear form depicted, an orthogonal configuration, or other polygonal configurations. The variety of geometric configurations is intended to appeal to the aesthetic desires of the consumer and user.

Now referring to **FIG. 6a** and **FIG. 6b**, an optional extension **50** may be provided to extend the lateral width that the safety cover **10** may span, thus providing versatility to the cover **10** in accommodating stoves of varying lateral widths. Without the extension **50**, the cover **10** is intended to span a lateral

width of approximately thirty (30) inches, or the standard width of most kitchen stoves. The extension **50** is provided to span approximately an additional six (6) to twelve (12) inches, which is intended to encompass the widths presently available. The extension **50** is formed of a front wall **52** coextensive with the front wall **38** of the bay **14**, a rear wall **54** coextensive with the rear wall **40** of the bay **14**, and a sidewall **56** intermediately therebetween, and a bottom wall **58** coextensive with a bottom wall of bay **14** if provided. The extension **50** is telescopically adjustable within the bay **14**, comprising a continuation of the walls **38**, **40**, **42** and **44** (and **46**, if necessary). The bay **14** depicted in **FIG. 6a** and **FIG. 6b** is an orthogonal configuration, wherein in **FIG. 6b**, the extension **50** is removed from bay **14** and shown side by side for illustrative purposes.

2. Operation of the Preferred Embodiment

To use the present invention, in accordance with a preferred embodiment of the present invention, a user will affix the plate **12** to the surface **3** on which the burner control dials **2** are found. The user will then pivotally rotate the bay **14** to shield the dials **2**, and cooperatively impinging the cavity **34** and hammer **36** together, securing the bay **14** to the plate **12**, thus preventing unwanted or accidental tampering of the dials **2**.

The foregoing descriptions of specific embodiments of the present invention have been presented for purposes of illustration and description. They

are not intended to be exhaustive or to limit the invention to the precise forms disclosed, and obviously many modifications and variations are possible in light of the above teaching. The embodiments were chosen and described in order to best explain the principles of the invention and its practical application, to thereby
5 enable others skilled in the art to best utilize the invention and various embodiments with various modifications as are suited to the particular use contemplated. It is intended that the scope of the invention be defined by the Claims appended hereto and their equivalents. Therefore, the scope of the invention is to be limited only by the following claims.